

Amendments

In the Specification:

Please replace paragraph [0036] with the following amended paragraph:

[0036] Fluorescent moieties and molecules useful in practicing the present invention include but are not limited to fluorescein, rhodamine, coumarin, dimethylaminonaph-thalene sulfonic acid (dansyl), pyrene, anthracene, nitrobenz-oxadiazole (NBD), acridine and dipyrrometheneboron difluoride and derivatives thereof. More specifically, non-limiting examples of fluorescent moieties and molecules useful in practicing the present invention include, but are not limited to:

carbocyanine, dicarbocyanine, merocyanine and other cyanine dyes (*e.g.*, CyDye™ fluorophores, such as Cy3, Cy3.5, Cy5, Cy5.5 and Cy7 from Pharmacia). These dyes have a maximum fluorescence at a variety of wavelengths: green (506 nm and 520 nm), green-yellow (540 nm), orange (570 nm), scarlet (596 nm), far-red (670 nm), and near infrared (694 nm and 767 nm);

coumarin and its derivatives (*e.g.*, 7-amino-4-methylcoumarin, aminocoumarin and hydroxycoumarin);

BODIPY dyes (*e.g.*, BODIPY FL, BODIPY 630/650, BODIPY 650/665, BODIPY TMR);

fluorescein and its derivatives (*e.g.*, fluorescein isothiocyanate);

rhodamine dyes (*e.g.* rhodamine green, rhodamine red, tetramethylrhodamine, rhodamine 6G and lissamine rhodamine B);

Alexa dyes (*e.g.*, Alexa Fluor-350, -430, -488, -532, -546, -568, -594, -663 and -660, from Molecular Probes);

fluorescent energy transfer dyes (e.g., thiazole orange-ethidium heterodimer, TOTAB, *etc.*);

proteins with luminescent properties, e.g.: green fluorescent protein (GFP) and mutants and variants thereof, including by way of non-limiting example fluorescent proteins having altered wavelengths (e.g., YFP, RFP, *etc.*). See Chiesa *et al.*, *Biochem. J.* 355:1-12 (2001). Recombinant aequorin and green fluorescent protein as valuable tools in the study of cell signaling. ~~Sacchetti~~ Chiesa *et al.*, *Biochem. J.* 355:1-12 (2001) (2000). The molecular determinants of the efficiency of green fluorescent protein mutants. ~~Larrick, J.W.~~ Sacchetti *et al.*, *Histol Histopathol.* 15:101-107 (1995). Green fluorescent protein: untapped potential in immunotechnology. Larrick, J.W. *et al.*, *Immunotechnology* 1:83-86 (1995).

aequorin and mutants and variants thereof;

DsRed protein (Baird *et al.*, Biochemistry, mutagenesis, and oligomerization of DsRed, a red fluorescent protein from coral. *Proc Natl. Acad. Sci. USA* 97:11984-11989 (2000)), and mutants and variants thereof (see Verkhusha *et al.*, 2001. An enhanced mutant of red fluorescent protein DsRed for double labeling and developmental timer of neural fiber bundle formation. *J. Biol. Chem.* 276:29621-29624 (2001); Bevis, B.J. and Glick, B.S., Rapidly maturing variants of the Discosoma red fluorescent protein (DsRed). *Nat. Biotechnol.* 20:83-87 (2002); Terskikh *et al.*, Analysis of DsRed Mutants. Space around the fluorophore accelerates fluorescence development. *J. Biol. Chem.* 277:7633-7636 (2002); Campbell *et al.*, A monomeric red fluorescent protein. *Proc Natl Acad. Sci. USA* 99:7877-7882 (2002); and Knop *et al.*, Improved

version of the red fluorescent protein (drFP583/DsRed/RFP). *Biotechniques* 33:592, 594, 596-598 (2002)); and

other fluors, e.g., 6-FAM, HEX, TET, F12-dUTP, L5-dCTP, 8-anilino-1-naphthalene sulfonate, pyrene, ethenoadenosine, ethidium bromide prollavine monosemicarbazide, p-terphenyl, 2,5-diphenyl-1,3,4-oxadiazole, 2,5-diphenyloxazole, p-bis[2-(5-phenyloxazolyl)]benzene, 1,4-bis-2-(4-methyl-5-phenyloxazolyl)-benzene, lanthanide chelates, Pacific blue, Cascade blue, Cascade Yellow, Oregon Green, Marina Blue, Texas Red, phycoerythrin, eosins and erythrosins;

as well as derivatives of any of the preceding molecules and moieties. Fluorophores, and kits for attaching fluorophores to nucleic acids and peptides, are commercially available from, e.g., Molecular Probes (Eugene, OR) and Sigma/Aldrich (St. Louis, MO).